Better road infrastructure = better economy

Rolling out the sheets of GlasGrid to rehabilitate a 57 km stretch of the N1 near Bela-Bela in Limpopo

Laying GlasGrid on the bitumen-treated base

IT IS NO SECRET that road maintenance is vital to provide safe, reliable transport for the advancement of the South African economy.

The Bakwena Platinum Corridor Concessionaire (Pty) Ltd is committed to managing, maintaining and upgrading its road infrastructure (N1N4 Platinum Highway) to international standards. Since signing a long-term concession contract with SANRAL (South African National Roads Agency Limited) more than 12 years ago, Bakwena has successfully managed a 90 km stretch of the N1 from Tshwane northwards to Bela-Bela (Warmbaths), and a 290 km stretch of the N4 running from Tshwane westwards to the Botswana border post at Skilpadshek. Funding for this maintenance is derived exclusively from tolling.

In order to make the N1N4 Platinum Highway durable, cost-effective and safe to travel on, Bakwena, with the assistance of one of its consultants Jeffares & Green, and contractor Murray & Roberts Infrastructure, is incorporating a geotextile technology, called GlasGrid, in its rehabilitation strategy of the N1 close to Bela-Bela. This stretch of road had deteriorated, with extensive cracking, and was due for rehabilitation. Used in various developed countries the world over, the GlasGrid application on the Bakwena route is the biggest in South Africa to date. It has shown remarkable results after its fitment on the M4 in Durban, where it was successfully used to cover wide cracks.

GlasGrid is an advanced fibreglass technology that reinforces the bitumen-treated base of the road to prevent reflective surface cracking. The fibreglass grid structure provides sufficient reinforcing to the overlay and delivers strain-relief beneath the grid.

"The need for constant road maintenance is in direct proportion to the growth in the country. As South Africa develops, so does the importance of national roads for commerce and industry, and in turn traffic volumes on these roads increase over time. With a greater number of road users comes a greater rate of deterioration, which is why making use of smart technologies, such as the GlasGrid system, could be beneficial in maintaining

the road," says Bakwena spokesperson Liam Clarke.

Bakwena is incorporating the GlasGrid technology to rehabilitate the affected 57 km stretch of the N1 near Bela-Bela. This part of the freeway is of strategic importance as it carries substantial traffic consisting mainly of commercial vehicles to the platinum mines in Limpopo, and beyond into Africa.

Clarke says that Bakwena strives to be at the forefront of new and improved technologies, and incorporates such into large rehabilitation/upgrade projects. As the successful implementation of new technologies such as GlasGrid could undoubtedly present long-term benefits to road users, Bakwena will be monitoring the value that GlasGrid adds, with a view to incorporating the technology into their rehabilitation strategy when warranted.

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Embedding the GlasGrid into the bitumen-treated base

Rehabilitation work in progress on the N1 near Bela-Bela